# 

Details: Correspondence (2008 - Pt. 1)

(FORM UPDATED: 08/11/2010)

# WISCONSIN STATE LEGISLATURE ... PUBLIC HEARING - COMMITTEE RECORDS

2007-08

(session year)

### Assembly

(Assembly, Senate or Joint)

Committee on ... Housing (AC-Ho)

#### **COMMITTEE NOTICES ...**

- Committee Reports ... CR
- Executive Sessions ... ES
- Public Hearings ... PH
- Record of Comm. Proceedings ... RCP

### INFORMATION COLLECTED BY COMMITTEE FOR AND AGAINST PROPOSAL

- Appointments ... Appt
- Clearinghouse Rules ... CRule
- Hearing Records ... bills and resolutions

(ab = Assembly Bill) (sb = Senate Bill)

(ar = Assembly Resolution)

(ajr = Assembly Joint Resolution) (sjr = Senate Joint Resolution)

Miscellaneous ... Misc

(**sr** = Senate Resolution)

\* Contents organized for archiving by: Mike Barman (LRB) (Aug/2010)

#### Becher, Scott

From:

Matthias, Mary

Sent: To: Wednesday, March 05, 2008 3:56 PM

Subject:

Becher, Scott rule procedure

Scott-

To recap our discussion:

The Housing committee's review period can be extended to a total of 60 days by either (a) requesting (in writing) that the agency meet with the committee to review the rule **or** (b) posting notice of a committee meeting to review the rule.

If the committee takes action on the rule, the procedure is the same that it would be if the leg. were in session- If the standing committee votes to object to the rule within the 30 (or 60) day period of jurisdiction, then the rule is referred to JCRAR. JCRAR has 30 days jurisdiction (or 60 days if extended). JCRAR must meet to take action on the rule during that time. If JCRAR objects to the rule, then JCRAR has to introduce a bill to support the objection. If the bill is introduced after Feb. of an even-numbered year, then JCRAR must reintroduce the bills at the beginning of the next session. If this happens, the agency cannot promulgate the rule until the next leg. convenes and takes action on the bills.

so..in other words- if you want to stop the agency from promulgating the rule, you have to first get the Housing committee to vote to object to the rule within the original 30 (or 60) day time frame, and then get JCRAR to also vote to object. These 2 processes are exactly the same, and with the same time limits, as they would be earlier in the leg. session.

The Housing committee could also vote to request modification of the rule. If the agency agrees in writing to consider making modifications, then the committee retains jurisdiction until 10 days after the agency submits the modification. After receiving the modification, the committee can request more modifications, vote to object to the rule, or let the rule go forward by taking no action.



### WISCONSIN STATE LEGISLATURE





P.O. Box 7970 Madison, Wisconsin 53707 (608) 266-1018 TDD#: (608) 264-8777

Jlm Doyle, Governor Jack L. Fischer, A.I.A., Secretary

Bruce Hoesly, Code Editor Legislative Reference Bureau Suite 200 1 East Main Street Madison, Wisconsin 53703 misc mario

Dear Mr. Hoesly:

### TRANSMITTAL OF WRITTEN NOTICE OF HEARING AND LEGISLATIVE COUNCIL REVIEW

RULE NO.: Chapter Comm 16	
RELATING TO: Electrical Construction	
AGENCY UNIT RESPONSIBLE: Commerce	
PUBLIC HEARING REQUIRED: X YES	NO
CONTACT PERSON:Joe Hertel	TITLE: Program Manager
TELEPHONE: _(608) 266-5649	EMAIL: joe.hertel@wisconsin.gov

Pursuant to sections 227.14 (4m) and 227.17, Stats., agencies are required to transmit a written notice of submittal of proposed rules to the Legislative Council and a written notice of hearing to the Legislative Reference Bureau, for publication in the Administrative Register.

On the date on this letter the department is submitting proposed rules to the Legislative Council and is submitting the following material to you:

- 1. Notice of Public Hearing or 30-Day Notice of Proposed Rulemaking.
- 2. Fiscal Estimate.
- 3. Initial Regulatory Flexibility Analysis.
- 4. Draft of Proposed Rules.

Respectfully submitted,

Jack L. Fischer, A.I.A. Secretary

COM-10546 (R.01/05)

# ADMINISTRATIVE RULE CORRESPONDENCE Department of Commerce

Date: May 15, 2008

To: Aaron Olver

From: Greg Jones

Rule No.: Chapter Comm 16

Relating To: Electrical construction

Subject: Announcement of Public Hearing

I have attached the required material for the announcement of a public hearing on the proposed rules to update the technical requirements for the installation of electrical wiring and equipment. We are submitting this package to you for your review and approval of the proposed rules. Because the cut off for submission to the legislature is September 1, 2008, we have tentatively set the public hearing for June 18, 2008. Therefore, the secretary's approval will be needed by May 14 to facilitate publication in the end of May Administrative Register.

The proposed rules consist of an update of chapter Comm 16, Electrical Code, including the incorporation by reference of the 2008 edition of the National Electrical Code (NEC) published by the National Fire Protection Association. The update of chapter Comm 16 involves the proposed adoption of the 2008 NEC that requires the installation of tamper-resistant receptacles and arc-fault circuit-interrupter protection in all new dwelling construction. The estimated increase to install tamper-resistant receptacles and arc-fault circuit-interrupters in an average dwelling would be \$215. Also, several current rules that are covered in the 2008 NEC were deleted and other rules were added where the NEC needs clarification or reinforcement. The proposed rules were developed with the assistance of a 13-member advisory council, and the rule draft reflects the recommendations of the council.

Please review the attached material and let me know if you have any questions. If we can proceed with announcing the public hearing, please sign the required forms and letters and return this package to Joe Hertel. We will then schedule the hearing, and prepare and distribute the required packages.

cc. Joe Hertel Jim Quast Bob DuPont

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	GINAL CRECTED	UPDATE SUPPLE	D MENTAL	LRB or Bill No./Adm. Rule No. Chapter Comm 16 Amendment No. if Applicable	
Subject Subject		····			
Electrical Construction					
Fiscal Effect State: X No State Fiscal Effect Check columns below only if bill makes a did or affects a sum sufficient appropriation Increase Existing Appropriation Decrease Existing Appropriation Create New Appropriation	ion Increase Existin			fosts - May be Possible to Absorb gency's Budget	
Local: X No local government costs			1		
1. Increase Costs	3. Increase Revenues		5. Types of Local Governmental Units Affected:		
Permissive Mandatory	Permissive	Mandatory	Towns Vil	ages Cities	
2. Decrease Costs	4. Decrease Revenues		Count	es Others	
Permissive Mandatory	Permissive	Mandatory	School	Districts TYTCS Districts	
Fund Sources Affected  GPR FED X PRO PRS	s SEG SEG-S	Affected Ch None	. 20 Appropriations		
Assumptions Used in Arriving at F	iscal Estimate				
<ol> <li>The Safety and Buildings Division is responsible for administering and enforcing rules relating to the installation of electrical wiring and equipment in chapter Comm 16. The proposed rules adopt by reference the latest edition of the National Electrical Code (NEC) published by the National Fire Protection Association and clarify existing technical requirements. The proposed rules do not contain any changes in the Division's fees charged for administering and enforcing chapter Comm 16. The proposed rules will not create any additional workload costs; therefore, they will not have any fiscal effect on the division.</li> <li>The proposed rules will not have a fiscal effect on other state agencies or local governments.</li> <li>The proposed adoption of 2008 NEC will require the installation of tamper-resistant receptacles and</li> </ol>					
arc-fault circuit-interrupter protection in all new dwelling construction. Tamper-proof receptacles cost an additional 50 cents or about 80 to 90 cents each. An average dwelling has about 80 receptacles, so the additional cost to install tamper-resistant receptacles would be \$40 per dwelling. The additional cost for each arc-fault circuit-interrupter unit is \$35 and the number to be installed varies per building. On the average, approximately five arc-fault circuit-interrupters are needed for a dwelling for a total cost of \$175. The estimated cost to install tamper-resistant receptacles and arc-fault circuit-interrupters in an average dwelling would be \$215. Labor costs are not affected by the proposal.					
Long-Range Fiscal Implications					
None known.					
Agency/Prepared by: (Name & Phone	e No.) Author	ized Signatı	ıre/Telephone N	o. Date	
Commerce/Joe Hertel (608) 266-	5649			May 15, 2008	

# INITIAL REGULATORY FLEXIBILITY ANALYSIS

### **Department of Commerce**

₹	JLE NO.: Chapter Comm 16
RE	ELATING TO: _Electrical Construction
1.	Types of small businesses that will be affected by the rules.
	The proposed rules will affect any business involved with the design and installation of electrical wiring, communication systems or electrical equipment.
2.	Reporting, bookkeeping and other procedures required for compliance with the rules.
	There are no reporting, bookkeeping or other procedures required for compliance with the rules.
3.	Types of professional skills necessary for compliance with the rules.
	There are no additional professional skills necessary for compliance with the rules.
4.	Rules have a significant economic impact on small businesses.
	X No Rules not submitted to Small Business Regulatory Review Board
	Yes Rules submitted to Small Business Regulatory Review Board

DATE:

May 8, 2008,

TO:

Bob DuPont, Safety & Buildings Division

FROM:

Marty Evanson Maty Cuarosing & Community Development Division

SUBJECT: Report on Rules Affecting Housing

Pursuant to s. 227.115, Stats. it is the responsibility of the Dept. of Commerce's Division of Housing and Community Development (DHCD) to make comments on proposed administrative rules affecting housing. Below is a summary of our comments regarding rule revisions proposed by the Dept. of Commerce, Safety & Buildings Division.

Comm 16, Electrical Construction Code - Proposed Changes Affecting Housing Costs The proposed rules would apply to new single family homes, duplexes, apartments and condominiums, in addition to public buildings and places of employment. The rules would also apply to additions and alterations to existing buildings of the aforementioned type.

Arc Fault Circuit Interrupters

The estimated increased material cost for each arc fault circuit interrupter is \$35. For a 1200 square foot home, no more than four arc fault circuit interrupters should be necessary. Labor costs would not increase. The resultant overall increased cost for installing arc fault circuit interrupters in such a home would be \$140; less than one tenth of one percent for a 1200 square foot home valued at \$180,000.

Tamper Resistant Electrical Receptacles

The estimated increased material cost for each tamper resistant electrical receptacle is 50 cents. A 1200 square foot home would be expected to contain no more than 60 receptacles. Labor costs would not increase. The resultant overall increased cost for installing tamper resistant electrical receptacles in such a home would be \$30; significantly less than one tenth of one percent for a 1200 square foot home valued at \$180,000.

#### Cost aspects as listed in s. 560.9801(3), stats.

(a) For housing occupied by the owner:

1. Principal and interest costs may increase proportionately.

2. Closing cost or "points" may increase proportionately.

3. Mortgage insurance may increase proportionately similar to above.

4. Property insurance should remain the same or be reduced if the insurance company takes the installation of arc fault circuit interrupters and tamper resistant electrical receptacles into account when determining applicable risks and premiums.

- 5. Utility-related costs should not be affected.
- 6. Property taxes should not be affected.
- 7. Fees paid to persons managing a cooperative should not be affected.

#### (b) For rented housing:

- 1. Rent may go up proportionately much like mortgage costs.
- 2. Utility-related costs should not be affected.

#### State housing strategy plan

The new rule would be in sync with the provisions in the state housing strategy plan to develop safe and decent housing.

#### Maintenance costs

These should not be impacted by the rule change.

#### Cost and availability of financing

A very small amount of added financing will be needed to support additional costs.

#### **National Association of Homebuilders**

## Position on the Installation of Arc Fault Circuit Interrupters (AFCIs)

(The following is NAHB's Ballot Comment on the Proposal to mandate AFCIs for all circuits of a residential building in NFPA 70 - The National Electric Code (NEC). NAHB is a member of that NFPA Technical Committee.)

There is absolutely no fire data that can be used to support the expansion of AFCI's to all receptacles, let alone the mandatory installation of AFCI's in bedrooms.

Looking at the latest data from NFPA in the report "The U.S. Home Product Report (Appliances and Equipment Involved in Fires)", by John R. Hall, Jr. of the Fire Analysis and Research Division of NFPA dated November 2005, the report shows that the annual average of number of home fires is 372,900, with direct property damage of \$443,000,000. Of this number 32,000 (or 9% = \$39,870,000) of these fires are caused by "electrical distribution equipment." Of that 9%, only 14,500 (or 4% = \$17,720,000) of those fires are attributed to "fixed wiring, switches, outlets, and receptacles." And, there is no data or study to support that of these 14,500 fires an the installation of an AFCI device would have prevent the fire.

Using the U.S. Census Bureau data on building permits for 2004 (Table (S-3) Final) shows 1,656,413 one- & two-family dwelling units and 413,664 multifamily units for that year.

There are typically 20 (twenty) 20-volt, single phase, 15- and 20-ampere branch circuits in each one- & two-family dwelling unit, and 10 in each multifamily dwelling unit. Using these numbers, there will be 33,128,260 AFCI's in OTFD's and 4, 136,640 for multifamily units, for a total of 37,264,900 AFCI's.

Using a wholesale cost of \$34.00 per breaker, marked-up the industry standard percentage of 66%, produces a cost per breaker of \$56.44 to the home owner.

In all, the average annual total cost to the public for the mandatory installation of AFCI's will be \$2,103,230.956 (\$1,267,006,600 wholesale). That is 2 BILLION, 130 MILLION, 230 THOUSAND, and 956 DOLLARS.

Using current fire loss data society will be spending \$2,103,230.956 per year to cover losses of only \$39,870,000. That means spending 52 times the amount of money that would be loss if the devices were not installed, and that is if the devices work 100% of the time. If you use the losses relating only to "fixed wiring, switches, outlets, and receptacles" (the part of the wiring that is claimed to be protected by AFCI breakers) the ratio to money spent relative to monetary loss (\$17,720,000) is 119 times, again, if they work 100& of the time.

In addition to the Submitter's Substantiation, there is no data to support the contention of a neither "excellent track record", nor information that these "installations have found numerous wiring errors" or "they have found wiring damage and equipment damage that could have been a potential sources of fire". That statement alone provides no correlation between the purported problems and the use of AFCI's.

It should also be noted that it appears the method used to certify these devices actually only tests to make sure the device will not cause an electrical shock or fire problem. IT DOES NOT TEST THE DEVICE TO ENSURE IT WILL PREVENT A FIRE CAUSED BY THE MANY SITUATIONS OF ELECTRICAL ARCING THAT COULD CAUSE A FIRE.

IN OTHER WORDS, NO ONE CAN PROVE THESE DEVICES WILL HAVE ANY COST-BENEFIT TO SOCIETY

The Panel needs to reconsider the mandatory installation of AFCI's, let alone the expansion of requiring these devices for all 120-volt, single phase, 15- and 20-ampere branch circuits in dwelling units. Until true field test data on the efficacy of AFCI's can be directly related to saving society monetary loss there is no cost-benefit in this provision.



# WISCONSIN STATE LEGISLATURE



June 25, 2008



Duane Hubeler Department of Commerce P.O. Box 2689 Madison WI 53701-2689

Dear Mr. Hubeler:

We approve many of the proposed Comm 20-25 updates as drafted and we appreciate the hours and thought that have gone into the code updating process. However, I am writing on behalf of the Wisconsin Builders Association® (WBA) Building Codes Committee to express concern about a dozen or so updates.

WBA agrees with the concerns and opposition expressed at the June 19 hearing by Pattie Stone on behalf of the Metropolitan Builders Association. Those issues include water-resistive barriers, the amended timing of inspections, new inspections for foundation reinforcement, the incorporation of new outside standards, the new section on fire sprinkler installation, lumber "use categories," the timing of the removal of ropes from weep holes, the new energy chapter, and the section on wall-bracing.

The WBA Building Codes committee chairman is most concerned with Comm 21.25 (8), Wall Bracing. He is not alone. Of all the issues, wall bracing generates the most negative reactions among our builders. One reason is that the section is exceedingly difficult to understand.

WBA strongly urges the Department of Commerce to entirely remove the wall bracing section from this year's UDC updates. Here's another reason -- and it's noteworthy.

The International Code Council's own Ad Hoc Wall Bracing committee has agreed to make substantial technical improvements to this section for the 2009 IRC edition. Those revisions will result in significant changes. It is anticipated that the 2009 provisions may lend themselves to simplification to fit Wisconsin's local conditions at the time of adoption. In addition to making technical improvements, the ICC-Ad Hoc Wall Bracing committee's eventual goal is to create a two-page bracing section for low-hazard states like Wisconsin. This would be a separate, standalone section that would suffice for most one- and two-family dwellings.

The Ad Hoc Wall Bracing committee agreed to these changes after an extensive and compelling review of whole building tests comparing existing and proposed wall-bracing rules.

Furthermore, we believe your estimates on how much it will add to the cost of a new home are too low. We've seen your estimate of \$500, and we heard one builder's estimate of \$15,000. More likely, using these new wall-bracing requirements on a typical home will probably add \$3,000 to \$5,000 to the cost of the new home by the time you add more sheathing, more hold-downs, more fasteners and possibly more manufactured drop-in panels. And that doesn't even get into the issue of having to build a bigger house in order to meet the new requirements, which will require a bigger lot size.

Working under the current IRC 2006 and the IRC 2007 Supplement rules, architects have already spent millions of dollars to redesign their homes. Now they will have to spend millions again when the 2009 IRC is published. Let's forestall the same situation in Wisconsin by waiting for the technically improved -- and hopefully user-friendly -- 2009 IRC wall-bracing code.

We would like Commerce to delay implementation of wall-bracing requirements until the newer, more geographically pertinent wall-bracing specifications are developed. If you do go forward, at least delay the effective date to April 1 so we've got time to train builders and inspectors on the new wall-bracing requirements.

We are concerned about the new language at Comm 21.24 (4) regarding "water-resistive barriers." The change references water that penetrates behind a "permanent weather-resistant finish." No exterior cladding is "permanent," so perhaps a better term would be "exterior covering." "Exterior covering" is consistent with the IRC's language, too. In any case, this section is also missing some key components needed for a true drainage plane. Some areas in this section actually allow for caulking of a penetration as big as five square inches; that surely will not be effective. We understand this section was added to the proposed changes pretty late in the code review cycle. We would like Commerce to remove this whole section for now so we can look at a more comprehensive and logical section during the next code cycle.

We oppose the new timing of inspections in Comm 20.10. Right now, an inspection can take place within two business days of notification of the need for the inspection. Commerce has now proposed that construction may proceed if the inspection has not taken place "by the end of the second business day FOLLOWING the day of notification." That effectively allows up to three business days for a required inspection. The other change is the required inspection for foundation reinforcement. These changes will be problematic especially for inspections involving poured walls and concrete. This could easily tie up a \$250,000 set of forms for two or three days. Big companies with several sets of forms might be able to work around this delay, but the person with one set of forms will be severely hampered. Where before he could do three to four set-ups in a week, now he might be lucky to get in one. The other thing is that contractors don't dare leave the forms on the job site, because the forms are being stolen and sold for scrap metal. The additional delay for inspection is going to cost a contractor with multiple forms about \$1,500 per job. For a contractor with only one set of forms, it could cost \$30,000 more per job. One simple solution would be for the inspector to use a rebar detector that costs around \$350. Please leave the inspection timing as it is in the 2004 Code, and please delete the new requirement that an inspector has to actually see the rebar in place as the foundation is being poured.

We are concerned about the incorporation of new or updated outside standards for Comm 20-25 in Wisconsin's Uniform Dwelling Code. Where will the average builder have access to all of these standards? Will they all be posted on the Internet or on Commerce's web site somewhere? Will municipalities have copies? And has there been a cost analysis on the impact these changes have on building a new home? Please try to limit these references. If they are vital, then isolate the exact specifications and include them the Code's appendix.

We oppose including Comm 21.095. This looks like a "placeholder" so the Department of Commerce can add in language that will require fire sprinkling in single-family homes in the future. We believe this fire sprinkler language should go into the Appendix, if it must be anywhere.

We are concerned about the "use categories" at Comm 21.10 (3) and in Table 21.10. Our builders are not familiar with these "use categories," and representatives at several lumber companies have said they haven't heard of them either. Please stay with standard labels instead of these new "use categories."

We oppose the new Energy Chapter within the updates for Comm 20-25 in Wisconsin's Uniform Dwelling Code. This is entirely new, and we've seen no cost analysis. We need more time to consider how fast we can implement the new requirements AND how much it's going to add to the cost of a new home. Please remove these from the proposed updates for the current code cycle.

The Wisconsin Builders Association® is a non-profit association representing nearly 9,000 members. WBA is dedicated to the creation and preservation of safe, affordable, quality housing opportunities for the people of Wisconsin.

National Association of Home Builders (NAHB) research has found that, for every additional \$1,000 in new home construction cost, 217,000 prospective new home builders is priced out of the market. Building materials costs are skyrocketing as a result of increased transportation costs and shortages of such items as copper. Where a cost-benefit analysis for new elements is lacking or insubstantial, we request that those elements be removed from the proposed updates to Wisconsin's Uniform Dwelling Code.

Many of these issues will directly and substantially affect the development, construction, cost, or availability of housing in this state, so we believe a report on the proposed rules is required before it is submitted to the legislative council staff (s. 227.115, "Review of rules affecting housing").

Thank you for your consideration.

Sincerely,

Cindi M. Gruebling Director of Safety & Education

c: Bob Sarow, Chad Wuebben, Mark Etrheim, Pattie Stone, Bill Wendle



## WISCONSIN STATE LEGISLATURE



TO:

Members, Senate Committee on Judiciary, Corrections and Housing

FROM:

Tom Larson, Director of Regulatory and Legislative Affairs

Kevin King, General Counsel

DATE:

August 15, 2008

RE:

Proposed changes Wis. Admin. Code § RL 16.06

The Wisconsin REALTORS® Association fully supports the order of the Department of Regulation and Licensing (DRL) adopting changes to Wisconsin Administrative Code § RL 16.06 (1) (a), (b) and (d).

#### Background

Among other duties, the DRL is authorized by statute to promulgate rules for the guidance of real estate practice and to approve contractual forms for use by real estate brokers and licensees in Wisconsin. The purpose of rule change is to prohibit certain alterations of DRL forms.

#### The Proposed Changes

In particular, the rule would prohibit blank lines to be added to the DRL forms (in addition to the blank lines already provided therein). This is necessary to eliminate the inclusion of additional lines containing content in a context and/or appearance such that the inserted provisions appear to be part of the DRL form. If additional content is necessary to be added to a DRL form so as to accomplish the intent of the party for whom the form is being drafted, the additional content can be inserted in the blank lines provided within the form or as an addendum to the form as authorized under existing rules.

#### Why This Rule Is Needed

This rule is necessary because of concern that without it modified DRL forms, containing content that has not been approved by the DRL, will create consumer confusion. An example of one such form, containing additional content that reasonably could be misconstrued as being approved by the DRL, was provided to both the Department's Real Estate Board as well as its Real Estate Contractual Forms Advisory Committee. This form purportedly was being used in a continuing education course as a means of demonstrating "allowable" means of modifying a DRL-approved form. The Real Estate Board and the Forms Advisory Committee concern was so strong that each recommended immediate action relative to amendment of the existing administrative rule.

If you questions about the rule or our support for it, please feel free to contact us.



## WISCONSIN STATE LEGISLATURE



#### Becher, Scott



From:

Matthias, Mary

Sent:

Friday, September 26, 2008 12:19 PM

To:

Becher, Scott

Subject:

FW: Comm 22

Attachments: 2008 UDC Code Change Comm 22 expanded change summary 9.25.08.doc

Scott-

Here is an explanation of the proposed changes to Comm 22 that you requested.

Mary

From: Swaziek, Larry J - COMMERCE [mailto:Larry.Swaziek@Wisconsin.gov]

Sent: Fri 9/26/2008 10:37 AM

To: Matthias, Mary

Cc: Hubeler, Duane D - COMMERCE; DuPont, Robert - COMMERCE

Subject: RE: Comm 22

Mary.

Duane asked that I get back to you with the information you requested. Attached is an expanded summary of the changes to chapter Comm 22. Hopefully, this is the information the legislator is looking for.

If you have any questions, please feel free to contact Duane or me.

Sincerely,

Larry Swaziek Program Manager Safety and Buildings Division 201 West Washington Ave, 4th Floor PO Box 2689 Madison, WI 53701-2689

608/267-7701 voice 608/264-8795 fax Larry.Swaziek@Wisconsin.gov e-mail

From: Matthias, Mary [mailto:Mary,Matthias@legis.wisconsin.gov]

Sent: Thursday, September 25, 2008 9:49 AM

To: Hubeler, Duane D - COMMERCE

Subject: Comm 22

Duane-

Thanks for getting back to me.

I think it would be fine if I got back to the legislator tomorrow. He wants more explanation of the proposed changes to Comm 22 than is provided in the Rules analysis. The explanation in the analysis is pretty brief:

Chapter Comm 22, containing the energy conservation requirements, is repealed and recreated to bring the Wisconsin requirements in line with the national model energy code. There are new prescriptive component requirements as an alternative to the traditional total envelope heat loss requirements.

#### Thanks--

Mary Matthias Senior Staff Attorney Wisconsin Legislative Council Staff Ph.(608)266-0932;Fax (608)266-3830

#### **Administrative Rule Correspondence**

For: Legislative Review Rules in Final Draft Form

Rule No.: Chapters Comm 20-25

Relating to: Uniform (1-2 Family) Dwelling Code

Clearinghouse Rule No.: 08-043

#### **Analysis of Proposed Rules**

Expansion on item 5 Summary of Proposed Rules related to ch. Comm 22:

Prepared by: Larry Swaziek (7-7701)

Dated: September 26, 2008

 Chapter Comm 22, containing the energy conservation requirements, is repealed and recreated to bring the Wisconsin requirements in line with the national model energy code. There are new prescriptive component requirements as an alternative to the traditional total envelope heat loss requirements.

Expansion:

#### Energy Code Comparison – Insulation Values:

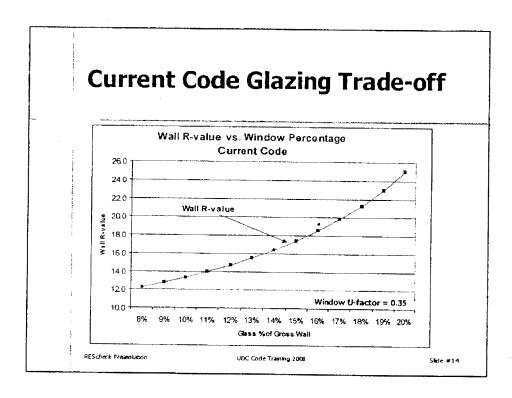
Component	Componer	Current WI UDC Component R-Values (Table 22.21)		Proposed WI UDC Component R-Values	
	Non-electrically Heated <sup>1</sup>	Electrically Heated	90%+ efficiency furnaces and boilers, electric, geothermal, etc. (Table 22.31-1)	Lower efficiency gas furnaces and gas boilers. (Table 22.31-4)	
Ceiling	R-38	R-50	R-49/38 <sup>2</sup>	R-49/38 <sup>2</sup>	
Framed Walls – Southern WI	R-18 (13+5) <sup>3</sup>	R-24 (17+5) <sup>4</sup>	R-19 (13+5)	R-21 (19+5)	
Framed Walls - Northern WI	R-18 (13+5) <sup>3</sup>	R-24 (17+5) <sup>4</sup>	R-21	R-21 (12+5)	
Basement Walls	R-11	R-11	R-10/13 <sup>5</sup>	R-15/19 <sup>5</sup>	
Crawispace Walls	R-16.6	R-16.6	R-10/13 <sup>5</sup>	R-15/19 <sup>5</sup>	
Raised Floors	R-20	R-20	R-30	R-30	
Heated slabs on grade	R-8.5	R-10	R-10/15 <sup>6</sup>	R-10/20 <sup>6</sup>	
Windows	U = 0.36*	U = 0.36*	U = 0.36	U = 0.30	

#### Footnotes:

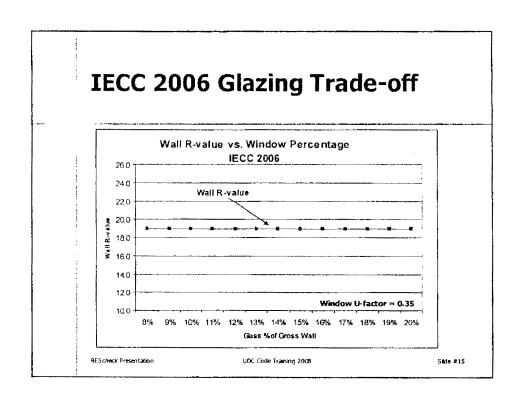
- 1. In accordance with s. Comm 22.21 (3), insulation values may be reduced when using high efficiency heating equipment.
- 2. The first R-value is for a ceiling that does not maintain the full depth of insulation at the exterior wall. The second value is for a ceiling that uses an energy heel truss to maintain the full insulation depth over the exterior wall.
- 3. Approximate. Based on overall wall U-factor of 0.110 with 15% glazing.
- 4. Approximate. Based on overall wall U-factor of 0.080 with 15% glazing.
- 5. The first r-value is for masonry or concrete walls and the second R-value is for the cavities of framed walls.
- 6. The first R-value applies under the entire slab, regardless of depth delow grade. The second R-value applies to the slab edge.

Graphic comparisons – Current UDC vs. Proposed UDC (following IECC 2006)

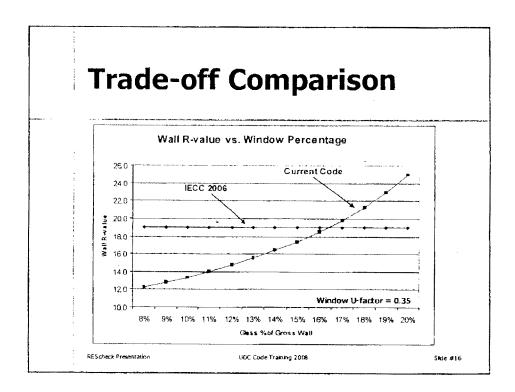
The graph below shows how the R-value for the wall is determined under the current UDC. The resultant value is based on the type and percentage of windows.



The graph below shows the proposed relationship between the wall R-value and the type and amount of glazing. Under the proposed change to the UDC, The required wall R-value is not dependant on the amount of glazing.



The single graph below compares the trade-offs of the current code and the proposed code.



 Under the proposed changes to the UDC, the energy requirements for sunroom additions have been simplified.

They need to meet the following:

- Opaque Ceiling R-value = R-24 min.
- Opaque wall R-value = R-13 min.
- Fenestration U-factor = 0.50 max.
- Skylight U-factor = o0.75 min.
- Thermally isolated. Separated from dwelling with walls, windows and doors that meet the dwelling thermal envelope requirements.
- Temperature in sunroom controlled as a separate zone or use separate heating equipment.
- There is no need to re-analyze the entire house for overall U-value as required under the current UDC.
- The 15% equipment over-sizing limit has been eliminated.



## WISCONSIN STATE LEGISLATURE





### Wisconsin Builders Association

September 26, 2008

Representative Steve Wieckert Room 16 West State Capitol P.O. Box 8953 Madison, WI 53708 Misc

Dear Representative Wieckert,

Thank you for talking with us recently regarding some of the concerns that members of the Wisconsin Builders Association® have with Comm 20-25 administrative rule updates that were recently sent to the Assembly Housing Committee.

Below we have outlined our major concerns with the package. We look forward to talking with you more concerning these issues.

#### WALL BRACING

Of all the issues, wall bracing generates the most negative reactions among our builders. One reason is that the section is exceedingly difficult to understand. The other is that this new provision will increase the cost of new homes, meaning that more people will be priced out of the new-home market.

WBA strongly urges the Department of Commerce to entirely remove the wall bracing section from this year's UDC updates and work instead to adopt elements of the International Code Council's (ICC's) just-approved 2009 International Residential Code (IRC). Even though the revisions drafted by Commerce are based mostly on the 2007 IRC Supplement (which is better than the 2006 IRC), the International Code Council's own Ad Hoc Wall Bracing committee agreed to make substantial technical improvements to the wall bracing section for the 2009 IRC edition. The ICC's Ad Hoc Wall Bracing committee agreed to these changes after an extensive and compelling review of whole building tests comparing existing and proposed wall-bracing rules. Those revisions were voted on at the ICC Final Action Hearings in September 2008. A new independent table for wind bracing was approved with modifications proposed by the ICC Ad Hoc Committee on Wall Bracing. New wind-bracing provisions will generally preserve traditional bracing amounts for typical one- and two-story dwellings in most of the country. Bracing amounts will increase for three-story homes, homes with large open plans, and homes built in high-wind areas.

Some of the 2009 provisions will lend themselves to simplification to fit Wisconsin's local conditions. After the ICC Final Action Hearings, we heard again from our engineering consultant. He writes, "The new wall bracing provisions for the IRC 2009 were approved and will include



improved wind bracing requirements that are far better than the 2006 IRC and the 2007 Supplement." Had those provisions not been approved, he writes, "I think the current UDC provisions (corner bracing only) are fine if they can be used for a limited scope of affordable/smaller homes. This would at least preserve the simplicity of bracing requirements for affordable housing and reduce the costs of complying with a more complex code. The more complex code would then apply to larger homes that are not intended to serve the affordable housing market and which can more readily be seen as needing a modest upgrade of older bracing provisions."

Furthermore, we believe Commerce estimates on how much it will add to the cost of a new home are too low. We've seen their estimate of \$500, and we heard one builder's estimate of \$15,000. More likely, using these new wall-bracing requirements on a typical home will probably add \$3,000 to \$5,000 to the cost of the new home by the time you add more sheathing, more hold-downs, more fasteners and possibly more manufactured drop-in panels. And that doesn't even get into the issue of having to build a bigger house in order to meet the new requirements, which will require a bigger lot size. Nor does this address the "soft" costs associated with the new wall bracing section: confusion in the permitting process with regard to code interpretation, potential delays in inspection due to confusion in how the code should apply to a given building, difficulty in making plan changes in the field, and plan changes for existing blueprints.

Working under the current IRC 2006 and the IRC 2007 Supplement rules, architects have already spent millions of dollars to redesign their homes. Now they will have to spend millions again when the 2009 IRC is published. Let's forestall the same situation in Wisconsin by adopting parts of the improved -- and potentially more user-friendly -- 2009 IRC wall-bracing code.

#### INSPECTIONS - TIMING AND NEW INSPECTION

We oppose the new timing of inspections in Comm 20.10. Right now, an inspection can take place within two business days of notification of the need for the inspection. Commerce has now "clarified" that language to say construction may proceed if the inspection has not taken place "by the end of the second business day FOLLOWING the day of notification." That effectively allows up to three business days for a required inspection.

The other change is the required inspection for foundation reinforcement at Comm 20.10 (3) (d).

These changes will be problematic especially for inspections involving poured walls and concrete. This could easily tie up a \$250,000 set of forms for two or three days. Big companies with several sets of forms might be able to work around this delay, but the person with one set of forms will be severely hampered. Where before he could do three to four set-ups in a week, now he might be lucky to get in one. The other thing is that contractors don't dare leave the forms on the job site, because the forms are being stolen and sold for scrap metal. The additional delay for inspection is going to cost a contractor with multiple forms about \$1,500 per job. For a contractor with only one set of forms, it could cost \$30,000 more per job. One simple solution would be for the inspector to use a rebar detector that costs around \$350.

Please leave the inspection timing as it is in the 2004 Code, and please delete the new requirement that an inspector has to actually see the rebar in place before or as the foundation is being poured.

#### CHANGES BETWEEN PUBLIC HEARING DRAFT AND FINAL DRAFT

Finally, a cursory comparison between the public hearing draft and the final draft revealed 40 instances where new material was added and/or edits made; in some cases, several paragraphs have been added. We would like an explanation for those changes, since they were not addressed in the public comments document.

#### PRICING HOUSEHOLDS OUT OF THE AMERICAN DREAM

National Association of Home Builders (NAHB) research has found that, for every additional \$1,000 in new home construction cost, 217,000 prospective new home builders are priced out of the market. In Wisconsin, a \$1,000 increase would price the following number of households out of the market in these areas: Appleton 241, Eau Claire 200, Fond du Lac 89, Green Bay 310, La Crosse 10, Madison 374, Milwaukee/Waukesha/West Allis 496, Oshkosh/Neenah 101, Sheboygan 73, and Wausau 144. More than 2,000 households -- and that's just in some of the metro areas and doesn't even consider outlying and rural areas.

Building materials costs are skyrocketing as a result of increased transportation costs and shortages of such items as copper. Asphalt shingle prices are up 40%.

Many of these issues will directly and substantially affect the development, construction, cost, or availability of housing in this state. Under s. 227.115, "Review of rules affecting housing," we believe a report should have been prepared before the proposed rules were submitted to the legislative council staff. We would like to see that report.

Wisconsin's housing industry has long been considered the "keel" of Wisconsin's economy, providing a steadying economic influence during boom times and down times. Now is the time to shore up the housing industry – not beat it down with more rules and additional costs.

Again, thank you for asking for our thoughts on the Comm 20-25 administrative rule updates that were recently sent to the Assembly Housing Committee. Please let us know if you need any additional information or would like to schedule some time to further discuss our members' concerns.

Brad Boycks

Director of Government Affairs

Wisconsin Builders Association®

Cindi Gruebling

Director of Safety and Education

Wisconsin Builders Association®



### WISCONSIN STATE LEGISLATURE





### Wisconsin Builders Association

September 26, 2008

Representative Steve Wieckert Room 16 West State Capitol P.O. Box 8953 Madison, WI 53708



Dear Representative Wieckert,

Thank you for talking with us recently regarding some of the concerns that members of the Wisconsin Builders Association® have with Comm 16 administrative rule updates that were recently sent to the Assembly Housing Committee.

Below we have outlined our major concerns with the package. We look forward to talking with you more concerning these issues.

#### Arc-Fault Circuit Interrupters (AFCIs)

The Wisconsin Builders Association® opposes the required installation of AFCIs throughout new homes, as proposed in the Comm 16 Electrical updates for Wisconsin's Uniform Dwelling Code. AFCIs automatically break the electrical circuit on an outlet if they detect an electrical arc jumping between frayed cords or sparking when an appliance is unplugged before it's turned off.

- 1) All of the information we've seen says AFCIs might make a difference in older homes, where fires from arcing have occurred, but there's no hard data that says installing AFCIs in new home will prevent fires.
- 2) Mandated AFCIs will add a lot more to the cost of a new home than estimated by the Department of Commerce. In Wisconsin, the estimated cost to the home owner for arc-fault interrupters, combination-type required under NEC 210.12(B) is \$50 to \$80 each. Ordinary circuit breakers cost \$7.60 retail at the top end, so the difference is \$42.40 to \$72.40 (avg. \$57.40). That's much higher than the \$35 estimated cost difference in Commerce's Fiscal Estimate. Furthermore, the Fiscal Estimate uses an average of five AFCIs, for a total of \$175 additional cost per dwelling. When you multiply the more realistic cost increase of \$57.40 times the more realistic 12 branch circuits in a typical one- or two-family home, the increased cost per home is \$668.80 before markup.

There are other costs associated with this new requirement. Right now, when a new home is wired, branch circuits or "home runs" go from various locations in the house to the circuit breaker panel. It is common practice to run multi-wire branch circuits using 14/3 or 12/3 wire, resulting in a cost savings in wire and labor. Arc faults will preclude this option. The electrician will need to run two pieces of 14/2 or 12/2 instead. Current wire prices vary but are in the range of 14/4 @ 20 cents per foot, 14/3 @ 30 cents per foot, 12/2 @ 32 cents per foot, and 12/3 @ 47 cents a foot.



Using two pieces of 14/2 will cost 40 cents vs 30 cents a foot; using 12/2 will cost 64 cents per foot vs 47 cents a foot. That's an approximate 30% increase in cost. Depending upon the home, the electrician may need conservatively 150 to 200 feet more of 14/2 and 100 to 150 feet more of 12/2. You need to consider labor too. Shop rates vary; some of the rates we discovered ranged from \$50 per hour to \$75 per hour. Figuring 1-1/2 to 3 hours for the extra wiring, you've just added \$75 to \$225 in labor. All told, this requirement will easily add another \$780-\$1,080 to the cost of the new home – again, before markup.

The Wisconsin Builders Association® recommends that current language in Comm 16 be retained: "Comm 16.21 Arc-fault circuit-interrupter protection [NEC 210.12]. NEC 210.12 does not apply in Wisconsin."

#### Tamper-Resistant Receptacles

The Wisconsin Builders Association® opposes NEC Article 406.11, which would be adopted under the new Comm 16 updates. NEC Article 406.11 will require tamper-resistant (TR) receptacles for all new dwelling construction. Our reasons for opposing this rule follow.

- 1) The new requirement is not based on sound technical information that adequately substantiates that such a requirement will result in protecting small children from burns or injury.
- 2) There is no scientific research available which has proven tamper-resistant receptacles are more effective than other safety devices that are currently available on the market (e.g., outlet covers that parents may purchase). Furthermore, less expensive devices already on the market may be purchased by people who have small children in the home, rather than foisting the requirement in homes where children may rarely or even never be present.
- 3) As written, Comm 16 requires TR receptacles in areas of the home that should not pose a threat to unattended children. Receptacles that are not readily accessible or that are dedicated for equipment should not be required to be tamper resistant. Examples of areas where TR receptacles should not be required are those found in attics, crawlspaces, mechanical rooms, behind equipment such as dishwashers, stoves, refrigerators, countertops, etc.
- 4) WBA believes the mandatory use of tamper-resistant receptacles throughout the new dwelling will affect affordability for the consumer. From Fiscal Estimate, DOA-2048 (R06/99) for Chapter Comm 16 (May 15, 2008), "Tamper-proof receptacles cost an additional 50 cents or about 80 to 90 cents each. An average dwelling has about 80 receptacles, so the additional cost to install tamper-resistant receptacles would be \$40 per dwelling." We believe this estimate is low. A large Midwest electrical supplier quoted \$3.57 each for a 15-amp duplex receptacle. That brings the cost of upgrading per dwelling to \$261.60.

Other hidden costs have not been addressed. How much will it cost for a TR GFCI or for a TR combination GFCI/AFCI if that combination should be required under the new NEC 2008 rules? Do some of these receptacles even exist?

5) We were surprised to see the requirement of tamper-resistant receptacles included in the proposed updates. The S&B Division Electrical Code Advisory Council met Tuesday, February 12, and the council's consensus was that "NEC 406.11 does not apply in Wisconsin." We understand that the Department of Commerce deems this group advisory in nature. On the other hand, the councils "are made up of recognized experts in a particular field or representatives of

major interests involved in the general subject of a code," so it seems counterintuitive to contradict the consensus of this group of recognized experts.

Based on the lack of data supporting increased safety, and based on a higher-than-estimated cost per new dwelling, and based on the findings of the Department of Commerce's own advisory council, the Wisconsin Builders Association<sup>®</sup> urges the Department of Commerce to amend its Comm 16 updates by deleting the requirement of tamper-resistant receptacles.

National Association of Home Builders (NAHB) research has found that, for every additional \$1,000 in new home construction cost, 217,000 prospective new home builders are priced out of the market. In Wisconsin, a \$1,000 increase would price the following number of households out of the market in these areas: Appleton 241, Eau Claire 200, Fond du Lac 89, Green Bay 310, La Crosse 10, Madison 374, Milwaukee/Waukesha/West Allis 496, Oshkosh/Neenah 101, Sheboygan 73, and Wausau 144. More than 2,000 households -- and that's just in some of the metro areas and doesn't even consider outlying and rural areas.

Building materials costs are skyrocketing as a result of increased transportation costs and shortages of such items as copper. Asphalt shingle prices are up 40%.

Furthermore, because both AFCIs and tamper-resistant receptacles will directly and substantially affect the development, construction, cost, or availability of housing in this state, we believe a report on the proposed rule was required before it was submitted to the legislative council staff (s. 227.115, "Review of rules affecting housing"). We would like to see this report.

Again, thank you for asking for our thoughts on the Comm 16 administrative rule updates that were recently sent to the Assembly Housing Committee. Please let us know if you need any additional information or would like to schedule some time to further discuss our members' concerns.

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Brad Bovcks

Director of Government Affairs

Wisconsin Builders Association®

Cindi Gruebling

Director of Safety and Education

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Wisconsin Builders Association®



## WISCONSIN STATE LEGISLATURE



#### Becher, Scott

From:

Becher, Scott

Sent:

Saturday, September 27, 2008 1:58 PM

To:

swieckert@sbcglobal.net

Subject:

FW: Comm 22

Attachments: 2008 UDC Code Change Comm 22 expanded change summary 9.25.08.doc

Here is "work" that Mary did on the Clearinghouse Rule for further information...

From: Matthias, Mary

Sent: Friday, September 26, 2008 12:19 PM

To: Becher, Scott

Subject: FW: Comm 22

Scott-

Here is an explanation of the proposed changes to Comm 22 that you requested.

Mary

From: Swaziek, Larry J - COMMERCE [mailto:Larry.Swaziek@Wisconsin.gov]

Sent: Fri 9/26/2008 10:37 AM

To: Matthias, Mary

Cc: Hubeler, Duane D - COMMERCE; DuPont, Robert - COMMERCE

Subject: RE: Comm 22

Mary,

Duane asked that I get back to you with the information you requested. Attached is an expanded summary of the changes to chapter Comm 22. Hopefully, this is the information the legislator is looking for.

If you have any questions, please feel free to contact Duane or me.

Sincerely,

Larry Swaziek
Program Manager
Safety and Buildings Division
201 West Washington Ave, 4th Floor
PO Box 2689
Madison, WI 53701-2689

608/267-7701 voice 608/264-8795 fax Larry.Swaziek@Wisconsin.gov e-mail

From: Matthias, Mary [mailto:Mary.Matthias@legis.wisconsin.gov]

Sent: Thursday, September 25, 2008 9:49 AM

To: Hubeler, Duane D - COMMERCE

Subject: Comm 22

Duane-

9/30/2008

Thanks for getting back to me.

I think it would be fine if I got back to the legislator tomorrow. He wants more explanation of the proposed changes to Comm 22 than is provided in the Rules analysis. The explanation in the analysis is pretty brief:

Chapter Comm 22, containing the energy conservation requirements, is repealed and recreated to bring the Wisconsin requirements in line with the national model energy code. There are new prescriptive component requirements as an alternative to the traditional total envelope heat loss requirements.

#### Thanks--

Mary Matthias Senior Staff Attorney Wisconsin Legislative Council Staff Ph.(608)266-0932;Fax (608)266-3830

#### **Administrative Rule Correspondence**

For: Legislative Review Rules in Final Draft Form

Rule No.: Chapters Comm 20-25

Relating to: Uniform (1-2 Family) Dwelling Code

Clearinghouse Rule No.: 08-043

#### **Analysis of Proposed Rules**

Expansion on item 5 Summary of Proposed Rules related to ch. Comm 22:

Prepared by: Larry Swaziek (7-7701)

Dated: September 26, 2008

 Chapter Comm 22, containing the energy conservation requirements, is repealed and recreated to bring the Wisconsin requirements in line with the national model energy code. There are new prescriptive component requirements as an alternative to the traditional total envelope heat loss requirements.

Expansion:

#### Energy Code Comparison – Insulation Values:

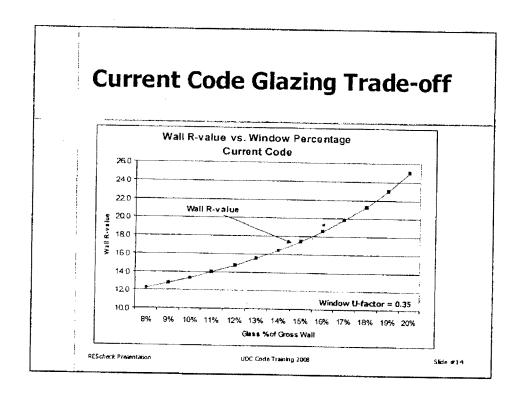
Component	Current WI UDC Component R-Values (Table 22.21)		Proposed WI UDC Component R-Values	
	Non-electrically Heated <sup>1</sup>	Electrically Heated	90%+ efficiency furnaces and boilers, electric, geothermal, etc. (Table 22.31-1)	Lower efficiency gas furnaces and gas boilers. (Table 22.31-4)
Ceiling	R-38	R-50	R-49/38 <sup>2</sup>	R-49/38 <sup>2</sup>
Framed Walls – Southern WI	R-18 (13+5) <sup>3</sup>	R-24 (17+5) <sup>4</sup>	R-19 (13+5)	R-21 (19+5)
Framed Walls - Northern WI	R-18 (13+5) <sup>3</sup>	R-24 (17+5) <sup>4</sup>	R-21	R-21 (12+5)
Basement Walls	R-11	R-11	R-10/13 <sup>5</sup>	R-15/19 <sup>5</sup>
Crawlspace Walls	R-16.6	R-16.6	R-10/13 <sup>5</sup>	R-15/19 <sup>5</sup>
Raised Floors	R-20	R-20	R-30	R-30
Heated slabs on grade	R-8.5	R-10	R-10/15 <sup>6</sup>	R-10/20 <sup>6</sup>
Windows	U = 0.36*	U = 0.36*	U = 0.36	U = 0.30

#### Footnotes:

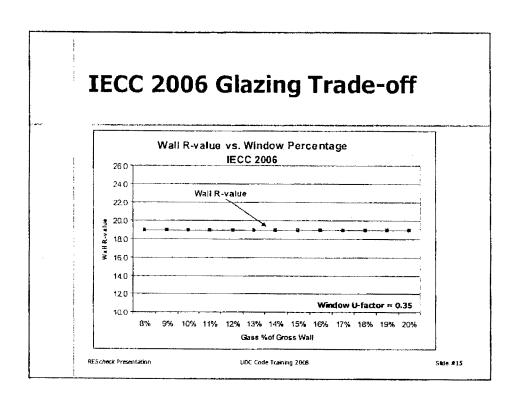
- 1. In accordance with s. Comm 22.21 (3), insulation values may be reduced when using high efficiency heating equipment.
- 2. The first R-value is for a ceiling that does not maintain the full depth of insulation at the exterior wall. The second value is for a ceiling that uses an energy heel truss to maintain the full insulation depth over the exterior wall.
- 3. Approximate. Based on overall wall U-factor of 0.110 with 15% glazing.
- 4. Approximate. Based on overall wall U-factor of 0.080 with 15% glazing.
- 5. The first r-value is for masonry or concrete walls and the second R-value is for the cavities of framed walls.
- 6. The first R-value applies under the entire slab, regardless of depth delow grade. The second R-value applies to the slab edge.

Graphic comparisons – Current UDC vs. Proposed UDC (following IECC 2006)

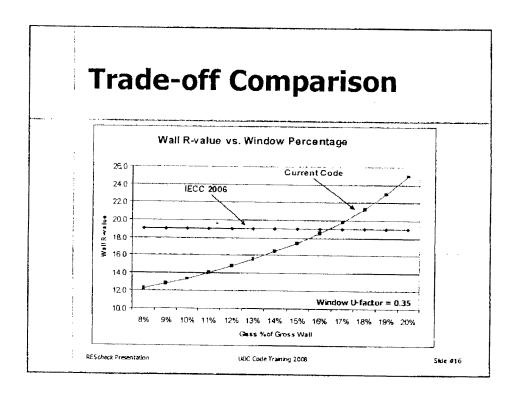
The graph below shows how the R-value for the wall is determined under the current UDC. The resultant value is based on the type and percentage of windows.



The graph below shows the proposed relationship between the wall R-value and the type and amount of glazing. Under the proposed change to the UDC, The required wall R-value is not dependant on the amount of glazing.



The single graph below compares the trade-offs of the current code and the proposed code.



 Under the proposed changes to the UDC, the energy requirements for sunroom additions have been simplified.

They need to meet the following:

- Opaque Ceiling R-value = R-24 min.
- Opaque wall R-value = R-13 min.
- Fenestration U-factor = 0.50 max.
- Skylight U-factor = o0.75 min.
- Thermally isolated. Separated from dwelling with walls, windows and doors that meet the dwelling thermal envelope requirements.
- Temperature in sunroom controlled as a separate zone or use separate heating equipment.
- There is no need to re-analyze the entire house for overall U-value as required under the current UDC.
- The 15% equipment over-sizing limit has been eliminated.